

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

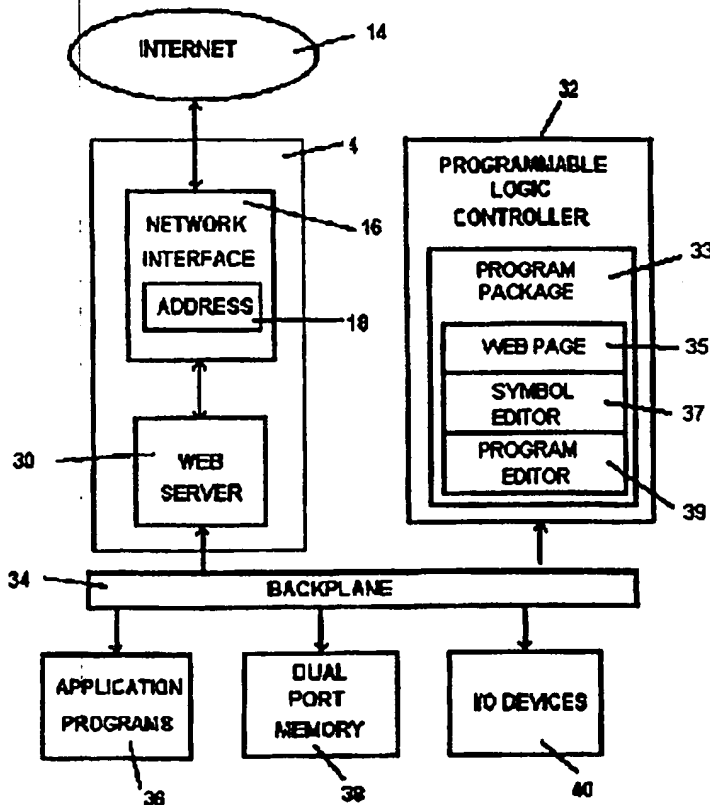
(19) World Intellectual Property Organization
International Bureau
 I OFFICE INTERNATIONAL DE PROPRIÉTÉ INDUSTRIELLE
 1, rue de la Harpe, 75001 Paris, France
 Tel. (33) 1 47 37 60 00
 Telex 360 000
 Fax (33) 1 47 37 60 01
 E-mail: wipo@wipo.int
(43) International Publication Date
20 September 2001 (20.09.2001)

PCT

(10) International Publication Number
WO 01/69335 A3

- (51) International Patent Classification: G05B 19/05, 19/418, G06F 9/44 (74) Agent: GOLDEN, Larry, I.; General Patent Counsel, Square D Company, 1415 South Roselle Road, Palatine, IL 60067 (US).
- (21) International Application Number: PCT/US01/05564 (81) Designated States (national): AU, CA, MX.
- (22) International Filing Date: 20 February 2001 (20.02.2001) (84) Designated States (regional): European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR).
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 09/524,171 13 March 2000 (13.03.2000) US Published: with international search report
- (71) Applicant: SCHNEIDER AUTOMATION INC. (US/US); One High Street, North Andover, MA 01845 (US) (88) Date of publication of the international search report: 28 February 2002
- (72) Inventor: BAKER, Richard, A.; 288 Middle Street, West Newbury, MA 01985 (US)
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: A WEB BROWSER



(57) Abstract: A control system includes an Internet web interface to a network of at least one programmable logic control system running an application program for controlling output devices in response to status of input devices. The Web interface runs Web pages from an Ethernet board coupled directly to the PLC back plane and includes an HTTP protocol interpreter, a PLC back plane drive, a TCP/IP stack, and an Ethernet board kernel. The web interface provides access to the PLC back plane by a user at a remote location through the Internet. The interface translates the industry standard Ethernet, TCP/IP and HTTP protocols used on the Internet into data recognizable to the PLC. Residing in the PLC is a programming package accessible to a user through this interface which will allow the user to edit programs, controlling the operation of the programmable logic controller system.

INTERNATIONAL SEARCH REPORT

national Application No

PCT/US 01/05564

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 G05B19/05 G05B19/418 G06F9/44

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G05B G06F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	PATENT ABSTRACTS OF JAPAN vol. 1999, no. 08, 30 June 1999 (1999-06-30) & JP 11 085224 A (TOSHIBA CORP), 30 March 1999 (1999-03-30) abstract	1-20
Y	EP 0 917 034 A (ENGEL GMBH MASCHBAU) 19 May 1999 (1999-05-19) the whole document --- -/-	1-4, 11-14

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

* Special categories of cited documents:

A document defining the general state of the art which is not considered to be of particular relevance

E earlier document but published on or after the international filing date

L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

O document referring to an oral disclosure, use, exhibition or other means

P document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

Δ document member of the same patent family

Date of the actual completion of the international search

1 November 2001

Date of mailing of the international search report

08/11/2001

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Hauser, L

BEST AVAILABLE COPY

INTERNATIONAL SEARCH REPORT

National Application No

PCT/US 01/05564

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	QUINNELL R A: "WEB SERVERS IN EMBEDDED SYSTEMS ENHANCE USER INTERACTION" EDN ELECTRICAL DESIGN NEWS, CAHNERS PUBLISHING CO. NEWTON, MASSACHUSETTS, US, vol. 42, no. 8, 10 April 1997 (1997-04-10), pages 61-64,66,68, XP000754835 ISSN: 0012-7515 the whole document	5-10, 15-20
E	US 6 268 853 B1 (BROOKS RUVEN E ET AL) 31 July 2001 (2001-07-31) the whole document	1-4, 11-14
E	WO 01 14963 A (NAT INSTR CORP) 1 March 2001 (2001-03-01) the whole document	1,11
P,X	FR 2 785 122 A (FAUGERAS PHILIPPE) 28 April 2000 (2000-04-28) the whole document	1,11
A	DE 196 15 190 A (FRITZ ELECTRONIC GMBH) 23 October 1997 (1997-10-23) the whole document	1,11
A	EP 0 982 644 A (KAWASAKI HEAVY IND LTD) 1 March 2000 (2000-03-01) the whole document	1,11

BEST AVAILABLE COPY

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 01/05564

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
JP 11085224	A	30-03-1999	NONE		
EP 0917034	A	19-05-1999	EP	0916466 A1	19-05-1999
			EP	0917034 A1	19-05-1999
			AT	206655 T	15-10-2001
US 6268853	B1	31-07-2001	NONE		
WO 0114963	A	01-03-2001	WO	0114963 A1	01-03-2001
FR 2785122	A	28-04-2000	FR	2785122 A1	28-04-2000
DE 19615190	A	23-10-1997	DE	19615190 A1	23-10-1997
			WO	9739393 A1	23-10-1997
EP 0982644	A	01-03-2000	JP	2873222 B2	24-03-1999
			JP	10315171 A	02-12-1998
			EP	0982644 A1	01-03-2000
			US	6175206 B1	16-01-2001
			WO	9852109 A1	19-11-1998

BEST AVAILABLE COPY